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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/885,366	06/20/2001	Jeffrey E. Stall	MSFT116665	4181

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EXAMINER

ZHEN, LI B

ART UNIT PAPER NUMBER

2126

DATE MAILED: 02/11/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

DM.

Office Action Summary

Application No.

09/885,366

Applicant(s)

STALL, JEFFREY E.

Examiner

Li B. Zhen

Art Unit

2126

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 9/24/01.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

1. Claims 1 – 16 are pending in this application.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,831,609 to London in view of U.S. Patent No. 6,182,276 to Brawn.**

4. As to claim 1, London teaches the invention substantially as claimed including a native user interface object [display of applications developed for "MICROSOFT WINDOWS"] originally intended for use in a native window manager ["MICROSOFT WINDOWS"] in a new window manager [X-Terminals], comprising [translation from Windows and "WINDOWS/NT" to the X-Window System and thus allows for the remote display of applications developed for "MICROSOFT WINDOWS" and "WINDOWS/NT" on X-Terminals and X-Servers; col. 2, lines 23 - 46]:

providing a software bridge [translation software] between the native window manager [translation software monitors system calls that the application relays to the native environment via the native environment's application program interface, step 310,

Fig. 3; col. 4, lines 46 - 65] and the native user interface object [GUI upon which the application program is displayed is referred to as the target GUI; col. 2, lines 15 - 25];

receiving a message at the software bridge intended for the native user interface object [translation software monitors the commands that are relayed from the application program to the application program interface provided by "WINDOWS/NT"; col. 4, lines 46 - 64];

determining whether the message should be forwarded to the new window manager [for each monitored system call, the translation software evaluates whether the command represented by the API call is window management related, step 315, Fig. 3; col. 4, lines 63 - 67]; and

in response to determining that the message should be forwarded, forwarding the message to the native window manager [the translation software can also pass the command to the native GUI system so that window management may be effectuated on a local native display, step 335, Fig. 3; col. 5, lines 5 - 39].

5. Although London teaches the invention substantially, London does not teach hosting legacy user interface in a new window manager.

However, Brawn teaches hosting a legacy user interface [receive and process presentation spaces from legacy host applications that are formatted for obsolete character-based terminals; col. 3, line 65 - col. 4, line 9] in a new window manager [target object contains the logic to process the presentation space: it understands the data stream format used, and knows what to do with the elements it contains; col. 3, lines 45 - 63].

6. It would have been obvious to a person of ordinary skill in the art at the time of the invention to apply the teaching of hosting legacy user interface in a new window manager as taught by Brawn to the invention of London because this would promote software reuse by adapting and reusing legacy interfaces in new window managers without having to rewrite the legacy interfaces [col. 2, lines 47 – 63 of Brawn].

7. As to claim 2, London as modified teaches in response to determining that the message should not be forwarded [step 315, NO PATHWAY, Fig. 3], forwarding the message to a procedure originally intended to handle the message [the monitored command is not window management related, the translation software passes the command to the application program's native operating system (step 315, NO PATHWAY, and step 340), Fig. 3; col. 5, lines 38 – 67 of London].

8. **Claims 3 – 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over London as modified by Brawn further in view of U.S. Patent No. 6,573,904 to Chun.**

9. As to claim 10, London as modified by Brawn teaches a native user interface object [display of applications developed for "MICROSOFT WINDOWS"] originally intended for use in a native window manager ["MICROSOFT WINDOWS"] in a new window manager [X-Terminals], comprising [translation from Windows and "WINDOWS/NT" to the X-Window System and thus allows for the remote display of

applications developed for "MICROSOFT WINDOWS" and "WINDOWS/NT" on X-Terminals and X-Servers; col. 2, lines 23 – 46 of London]:

hosting a legacy user interface [receive and process presentation spaces from legacy host applications that are formatted for obsolete character-based terminals; col. 3, line 65 – col. 4, line 9 of Brawn] in a new window manager [target object contains the logic to process the presentation space: it understands the data stream format used, and knows what to do with the elements it contains; col. 3, lines 45 – 63 of Brawn]

providing a software bridge [translation software] between the native window manager [translation software monitors system calls that the application relays to the native environment via the native environment's application program interface, step 310, Fig. 3; col. 4, lines 46 – 65 of London] and the native user interface object [GUI upon which the application program is displayed is referred to as the target GUI; col. 2, lines 15 – 25 of London];

receiving a message at the software bridge intended for the native user interface object [translation software monitors the commands that are relayed from the application program to the application program interface provided by "WINDOWS/NT"; col. 4, lines 46 – 64 of London];

determining whether the message should be forwarded to the new window manager [for each monitored system call, the translation software evaluates whether the command represented by the API call is window management related, step 315, Fig. 3; col. 4, lines 63 – 67 of London]; and

in response to determining that the message should be forwarded, forwarding the message to a root user interface object [translation software forwards the command to the target GUI system, step 330, Fig. 3; col. 5, lines 5 – 39 of London] maintained by the new window manager [command is forwarded to a window manager...window manager then effectuates the converted command via the X-Server; col. 5, lines 5 - 39 of London] and processing the message at the adapter control [target object contains the logic to process the presentation space: it understands the data stream format used, and knows what to do with the elements it contains; col. 3, lines 45 – 63 of Brawn].

10. London as modified by Brawn does not teach routing a message from a root user interface object down a window tree.

However, Chun teaches routing a message from the root user interface object [root window] down a window tree [using a root window as the parent window and traversing the window tree; col. 5, line 54 - col. 6, line 5].

11. It would have been obvious to a person of ordinary skill in the art at the time of the invention to apply the teaching of routing a message from the root user interface object down a window tree as taught by Chun to the invention of London as modified by Brawn because this will traverse the parent window, as well as all of the siblings and children of the parent window to update the display information of each window [col. 8, lines 39 – 56 of Chun].

12. As to claim 3, London as modified teaches forwarding the message to a root user interface object [translation software forwards the command to the target GUI system,

step 330, Fig. 3; col. 5, lines 5 – 39 of London] hosted in a window tree [using a root window as the parent window and traversing the window tree; col. 5, line 54 - col. 6, line 5 of Chun] maintained by the new window manager [command is forwarded to a window manager...window manager then effectuates the converted command via the X-Server; col. 5, lines 5 - 39 of London].

13. As to claim 4, London as modified teaches routing the message down the window tree maintained by the new window manager [using a root window as the parent window and traversing the window tree; col. 5, line 54 - col. 6, line 5 of Chun] to an adapter control associated with the legacy user interface object [target object contains the logic to process the presentation space: it understands the data stream format used, and knows what to do with the elements it contains; col. 3, lines 45 – 63 of Brawn].

14. As to claim 5, London as modified teaches processing the message at the adapter control [target object contains the logic to process the presentation space: it understands the data stream format used, and knows what to do with the elements it contains; col. 3, lines 45 – 63 of Brawn].

15. As to claims 6 and 11, London as modified teaches forwarding the message to a procedure originally intended to handle the message [the monitored command is not window management related, the translation software passes the command to the

application program's native operating system (step 315, NO PATHWAY, and step 340), Fig. 3; col. 5, lines 38 – 67 of London].

16. As to claims 7 and 12, London as modified teaches routing the message from the adapter control to a listener object [recognition object, with which screen definitions were registered in FIG. 4, receives the data in the data streams it has been configured to monitor; col. 11, lines 23 – 35 of Brawn] attached to the adapter control [target object; col. 12, lines 1 – 10 of Brawn].

17. As to claims 8 and 13, London as modified teaches routing the message from the adapter control up the window tree [using a root window as the parent window and traversing the window tree; col. 5, line 54 - col. 6, line 5 of Chun] maintained by the new window manager so that parent objects [parent window] of the adapter control may process the message if the message has not been completely handled [traverse the parent window, as well as all of the siblings and children of the parent window to update the color WIDs that intersect the region; col. 8, lines 39 - 56 of Chun].

18. As to claims 9 and 14, London as modified teaches in response to determining that the message has been completely handled, returning control to a procedure associated with the legacy user interface object [native operating system creates a window structure based on the passed parameters of the CreateWindow API call...and

returns to the application program a handle to the created window structure; col. 6, lines 36 - 67 of London].

19. As to claim 15, London as modified teaches computer-controlled apparatus [host machine] capable of performing the method of any one of Claims 1-14 [translation software provides remote access to an application program that is executing on a host machine in its native operating system environment; col. 1, lines 45 – 60 of London].

20. As to claim 16, London as modified teaches a computer-readable medium comprising instructions [translation software] which, when executed by a computer, cause the computer to perform the method of any one of Claims 1-14 [translation software monitors system calls that the application relays to the native environment via the native environment's application program interface, step 310, Fig. 3; col. 4, lines 46 – 65 of London].

Conclusion

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Li B. Zhen whose telephone number is (703) 305-3406. The examiner can normally be reached on Mon - Fri, 8:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (703) 305-9678. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Li B. Zhen
Examiner
Art Unit 2126

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February 6, 2004



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